THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE

WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER
Trial ID: CN-06-20 Study Dir.: CODY POWELL/JEFF WILLIAMS

303

Location: MILLER COUNTY Investigator: Eric P. Prostko

103

203

Plots: 100 by 1000 feet Reps: 3 Trt | Treatment | Amt Product Rep to Measure No. Name Diluent 1 3 1 10 DAP 101 201 301 2 20 DAP 202 102 302

Sort Order: Treatment

3 30 DAP

#### **Trial Comments**

OBJECTIVE: TO EVALUATE SPRAY COVERAGE, WEED CONTROL, AND YIELD AS INFLUENCED BY HERBICIDE APPLICATION TIMING IN FIELD CORN USING COMMERCIAL SPRAY EQUIPMENT.

HERBICIDE TREATMENT APPLIED: ROUNDUP POWERMAX @ 32 OZ/A + ATRAZINE 4L @ 64 OZ/A + QUEST @ 1 QT/100 GALS + GROUNDED @ 1 GAL/100 GALS

SPRAYER: JD4630

BOOM WIDTH: 90 FT (30 ROWS)

NOZZLE SPACING: 20"

GPA: 10 PSI: 32

TRACTOR SPEED: 11.0 NOZZLE TYPE: 8003EVS

36"/9" TWIN ROWS

IN-FIELD SPRAY COVERAGE ANALYSIS (%) FROM 15 SPRAYS CARDS (5/REP) USING SNAPCARD AT TIME OF APPLICATION (2" HEIGHT AND 6" HEIGHT). 2" x 3" WATER SENSITIVE CARDS - 300 FT FROM EDGE THEN EVERY 5 ROWS - 5 CARDS/HEIGHT

SNAPCARD APP USED FOR SPRAY COVERAGE ANALYSIS

SPRAY CARD DATA WAS NOT USED FROM 10 DAP TREATMENT DUE TO HEAVY DEW/IN-ACCURATE READINGS

HARVEST DATE: AUGUST 13

PLOTS SIZE: 8 TWIN ROWS (24') x 300' YIELDS ADJUSTED TO 15.5% MOISTURE.

#### **SUMMARY:**

- 1) SPRAY CARD COVERAGE AT BOTH 2" AND 6" HEIGHT WAS SIGNIFICANTLY REDUCED WHEN THE HERBICIDE TREATMENT WAS DELAYED FROM 20 DAP (V4) UNTIL 30 DAP (V6). COVERAGE WAS REDUCED BY 39.6% AT THE 2" HEIGHT AND 42.1% AT THE 6" HEIGHT.
- 2) WEED POPULATIONS IN THIS FIELD WERE LOW SO WEED COUNTS BETWEEN APPLICATION TIMINGS WERE NOT SIGNIFICANTLY DIFFERENT.
- 3) CORN YIELDS WERE NOT SIGNIFICANTLY DIFFERENT BETWEEN ANY APPLICATION TIMING WHICH IS ALSO RELATED TO THE LOW WEED DENSITIES PRESENT IN THIS FIELD AT THE TIME OF APPLICATION (P = 0.6875).

Trial ID	WEED CO ):		ELD OF FIELD CORN U Study Dir.:	G ON SPRAY COVERAGE, ISING A COMMERCIAL SPRAYER CODY POWELL/JEFF WILLIAMS Eric P. Prostko				
		GE	NERAL TRIAL INFORM	IATION				
Affiliat		CODY POWELL UNIVERSITY OF	GEORGIA - MILLER CO	Title: COUNTY EXTENSION AGENT DUNTY				
<b>Affiliat</b>	t <b>ion:</b> U	ric P. Prostko <b>Titl</b> NIVERSITY OF GE						
			TRIAL LOCATION					
City:	_	OLQUITT		Trial Status: E				
	Prov.: G Code:	A		Trial Reliability: Initiation Date:				
Count	ry: $\overline{U}$	SA		Planned Completion Date:				
		LL Corner °:	Unit:	N-Latitude of LL Corner °:				
Directi	le of LL ( ons:	corner:		Angle y-axis to North °:				
		000	SEDATOR# ANDONY	-n				
Coope	erator: Ji	EFF WILLIAMS	PERATOR/LANDOWNE	_				
Org:				Phone No:				
Addre:				Fax No:				
City:		OLQUITT		_				
	Prov: G							
Postai	Code: _							
Guide	Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N Guidelines: Guideline Description: Objective:							
	-							
Object	-							
Object Conclu	ive: usions:							
Object Conclu	ive: usions:	/EED DESCRIPTIO						
Object Conclu	ive: usions: P AND W	/EED DESCRIPTION	DN	ZEA MAYS				
Object Conclu CRO Weed	ive: usions: P AND W	/EED DESCRIPTIO	DN Scientific Name					
Object Conclu CRO Weed 1.	ive: usions: P AND W Code ZEAMA	/EED DESCRIPTIO Common Name FI BE	ON Scientific Name ELD CORN					
CRO Weed 1. 2.	ive: usions: P AND W Code ZEAMA COMBE	/EED DESCRIPTIO Common Name FI BE	ON Scientific Name ELD CORN NGHAL DAYFLOWER					
CRO Weed 1. 2. 3.	ive: usions: P AND W Code ZEAMA COMBE ARAHY	/EED DESCRIPTION Common Name FI BE V.	ON Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT					
CRO Weed 1. 2. 3.	ive: usions: P AND W Code ZEAMA COMBE ARAHY RHISC	EED DESCRIPTION Common Name FI BE V. FL	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY					
CRO Weed 1. 2. 3. 4. 5. 6.  Crop Plantii Rate: Row S	ive: usions: P AND W Code ZEAMA COMBE ARAHY RHISC	/EED DESCRIPTIO Common Name FI BE V. FL BR A FIELD CO Mar-17-20 SEED/A S	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR	Variety: DYNAGRO 58VC65				
CRO Weed 1. 2. 3. 4. 5. 6.  Crop Plantii Rate: Row S	ive: usions: P AND W Code ZEAMA COMBE ARAHY RHISC ACAHI 1: ZEAM ng Date: 29800 spacing:	/EED DESCRIPTIO Common Name FI BE V. FL BR A FIELD CO Mar-17-20 SEED/A S	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR  ORN Planting Method Depth: 2 IN Spacing Within Row:	Variety: DYNAGRO 58VC65 nod: MONOSEM TWIN ROW Perennial Age:				
Object Conclu CRO Weed 1. 2. 3. 4. 5. 6. Crop Plantii Rate: Row S Soil Te	ive:  Jusions:  P AND W Code ZEAMA COMBE ARAHY RHISC ACAHI  1: ZEAM 1g Date: 29800 pacing: emperature  Jidth, Unitype: Fl	FL BR  A FIELD COMMAN SEED/A SEED/A SITE: 100 FT PIGELD	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR  ORN Planting Meth Depth: 2 IN Epacing Within Row: Soil Moisture: TE AND DESIGN ot Length, Unit:	Variety: DYNAGRO 58VC65  MONOSEM TWIN ROW Perennial Age:Seed Bed:Seed Bed:				
Object Conclu CRO Weed 1. 2. 3. 4. 5. 6. Crop Plantii Rate: Row S Soil Te	ive:  Jusions:  P AND W Code ZEAMA COMBE ARAHY RHISC ACAHI  1: ZEAM 1g Date: 29800 pacing: emperature  Jidth, Unitype: Fl	FI BE V. FL BR  A FIELD CO Mar-17-20 SEED/A SEED/A SITE: 100 FT PIC	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR  ORN Planting Meth Depth: 2 IN spacing Within Row: Soil Moisture:	Variety: DYNAGRO 58VC65  MONOSEM TWIN ROW Perennial Age:Seed Bed:Seed Bed:				
CRO Weed  1. 2. 3. 4. 5. 6.  Crop Plantin Rate: Row S Soil Te	P AND W Code ZEAMA COMBE ARAHY RHISC ACAHI 1: ZEAM 1: ZEAM 1: Z9800 pacing: emperature fidth, Unitype: File Type: Continuation (	A FIELD COMMON AME  FL BR  A FIELD COMMON AME  Mar-17-20 SEED/A  SEED/A  SEED/A  SITE: 100 FT PIO ELD ONVENTIONAL  Comments: 36"/9"	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR  ORN Planting Meth Depth: 2 IN Spacing Within Row: Soil Moisture: TE AND DESIGN ot Length, Unit: Study Design: TWIN ROW	Variety: DYNAGRO 58VC65  MONOSEM TWIN ROW Perennial Age:Seed Bed:Seed Bed:				
Object Conclu CRO Weed 1. 2. 3. 4. 5. 6. Crop Plantii Rate: Row Soil Te	P AND W Code ZEAMA COMBE ARAHY RHISC ACAHI 1: ZEAM 1: ZEAM 1: Z9800 pacing: emperature fidth, Unitype: File Type: Continuation (	A FIELD COMMON AME  FL BR  A FIELD COMMON AME  Mar-17-20 SEED/A  SEED/A  SITE: 100 FT PICELD ONVENTIONAL	Scientific Name ELD CORN NGHAL DAYFLOWER PEANUT PUSLEY ISTLY STARBUR  ORN Planting Meth Depth: 2 IN Spacing Within Row: Soil Moisture: TE AND DESIGN ot Length, Unit: Study Design: TWIN ROW	Variety: DYNAGRO 58VC65  MONOSEM TWIN ROW Perennial Age:Seed Bed:Seed Bed:				

MAINTENANCE Field Prep./Maintenance:

	THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,									
	WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER									
Trial ID:		CN-06-20		Study Dir.:			CODY POWELL/JEFF WILLIAMS			
Loca	ation:	MILLER	COUN	ITY	Invest	igator:		Eric P. Prostko		
		Maintenance	Form	Form	Form		Rate			
No.	Date	Maintenance Treatment Name	-	_	_					

%	Sand: Silt: Clay:		% OM: _ pH: _ CEC: _		Text Soil	DESCRI ure: Name: Level:	PTION								
Δ	DDIT	ONAL	MEASUR	ED E	LEME	NTS									
Ele	ment	Quan	tity Unit												
		1		_											
N	OIST	URE C	ONDITIO	NS											
	Date	Time	Amount	Unit	Type	Interval	Unit								
1.															
			•			•									
Οv	erall N	Moistu	re Condit	ions:		_							_		
Clo	sest '	Weath	er Station	n:				_ Distar	ice:		Uni	t:			

APPLICATION DESC	APPLICATION DESCRIPTION										
	Α	В	C								
Application Date:	Mar-27-20	Apr-6-20	Apr-16-20								
Time of Day:	9:00 AM	9:15 AM	9:00 AM								
Application Method:	JD4630	JD4630	JD4630								
Application Timing:	10 DAP	20 DAP	30 DAP								
Applic. Placement:	FOLIAGE	FOLIAGE	FOLIAGE								
Air Temp., Unit:	66 F	62 F	53 F								
% Relative Humidity:	98	99	45								
Wind Velocity, Unit:	4 MPH	1 MPH	10 MPH								
Dew Presence (Y/N):	N	Υ	N								
Water Hardness:											
Soil Temp., Unit:											
Soil Moisture:	OPTIMUM	OPTIMUM	OPTIMUM								
% Cloud Cover:	100	100	0								

CROP STAGE AT EACH APPLICATION					
	Α	В	С		
Crop 1 Code, Stage:	ZEAMA	ZEAMA	ZEAMA		
Stage Scale:	V1-V2	V4-V5	V5-V6		
Height, Unit:	4 IN	9 IN	15 IN		

THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,
WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER
D: CN-06-20 Study Dir.: CODY POWELL/JEFF WILLIAMS ion: MILLER COUNTY Investigator: Eric P. Prostko

Trial ID: Location:

WEED STAGE AT EA	CH APPLICA	TION	
	Α	В	С
Weed 1 Code, Stage:	ZEAMA	ZEAMA	ZEAMA
Stage Scale:			
Density, Unit:			
Weed 2 Code, Stage:	COMBE	COMBE	COMBE
Stage Scale:	0.5" 2 LF	2";2 LF	1-2"
Density, Unit:			
Weed 3 Code, Stage:	ARAHY	ARAHY	ARAHY
Stage Scale:	1-2";2-3L	2-3"	2-4"
Density, Unit:			
Weed 4 Code, Stage:	RHISC	RHISC	RHISC
Stage Scale:	0.5";1 LF	0.5-1";2L	2-3"
Density, Unit:			
Weed 5 Code, Stage:	ACAHI A	ACAHI	ACAHI
Stage Scale:	0.5";1-2L	1";2 LF	3-4"
Density, Unit:			
Weed 6 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed 7 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed 8 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed 9 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed10 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed11 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed12 Code, Stage:			
Stage Scale:			
Density, Unit:			
Weed13 Code, Stage:			
Stage Scale:			
Density, Unit:			
			•

-	THE INFLUENCE OF APPLIC	CATION TIMING	ON SPRAY COVERA	GE,
WEED (	CONTROL, AND YIELD OF F	TIELD CORN US	SING A COMMERCIAL	SPRAYER
Trial ID:	CN-06-20	Study Dir.:	CODY POWELL	JEFF WILLIAMS
Location:	MILLER COUNTY	Investigator:	Eric P. Prostko	

MENT		
Α	В	С
JD4630	SAME AS A	SAME AS A
32		
FLAT FAN		
8003EVS		
20 IN		
90 FT		
48 IN		
11.0 MPH		
WATER		
10 GPA		
PUMP		
	A JD4630 32 FLAT FAN 8003EVS 20 IN 90 FT 48 IN 11.0 MPH WATER 10 GPA	A B JD4630 SAME AS A 32 FLAT FAN 8003EVS 20 IN 90 FT 48 IN 11.0 MPH WATER 10 GPA

Trt No	Treatment Application Comment
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	NFLUENCE O ROL, AND YII					/ER		
Trial ID:	CN-06-20		ıdy Dir.:		WELL/JEFF \	VILLIAMS		
Location:	MILLER CO	UNTY Inv	estigator:	Eric P. Pro	ostko			
Weed Code	CARD	CARD	CARD	CARD	CARD	CARD	CARD	CARD
Crop Code	COVERAGE	COVERAGE	COVERAGE	COVERAGE	COVERAGE	COVERAGE	COVERAGE	COVERAGE
Part Rated								
Rating Data Type	2"-1		2"-3				6"-1	6"-2
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date								
ARM Action Codes						T1		
# Subsamples, Dec.						- 1		
Trt Treatment								
No. Name	1	2	3	4	5	6	7	8
1 10 DAP								
2 20 DAP	19.60 a	18.37 a	26.33 a	16.60 a	18.67 a	19.9 a	16.57 a	15.93 a
3 30 DAP	11.83 a	12.30 b	12.40 b	10.83 b	12.43 a	12.0 b	8.43 a	9.87 a
LSD P=.10	8.841	5.753	12.999	1.620	13.759	2.06	11.821	10.737
Standard Deviation	3.708	2.413	5.452	0.679	5.771	0.86	4.958	4.504
CV	23.59	15.74	28.15	4.95	37.11	5.43	39.66	34.91
Grand Mean	15.717	15.333	19.367	13.717	15.550		12.500	12.900
Bartlett's X2	0.688		1.663			0.309	0.833	0.551
P(Bartlett's X2)	0.407	0.638	0.197	0.57	0.305	0.578	0.361	0.458
							·	

THE IN WEED CONT		F APPLICATION OF FIELD							
Trial ID:	CN-06-20	Stu	ıdy Dir.:	CODY PO	WELL/JE	FF WILLIA	MS		
Location:	MILLER CO	UNTY Inv	estigator:	Eric P. Pro	ostko				
Weed Code	CARD			CARD	TOTAL	TOTAL	TOTAL		
Crop Code	COVERAGE	COVERAGE	COVERAGE	COVERAGE	WEED	WEED	WEED		
Part Rated				0" 41 40				PLOT -	GRAIN -
Rating Data Type	6"-3 PERCENT			6"-AVG	COUNT #/3FT2	COUNT #/2FT2	COUNT		MOISTURE
Rating Unit Rating Date	PERCENT	PERCENT	PERCENT	PERCENT			#/2F12 Apr-29-20	LBS/PLOT Aug-13-20	PERCENT Aug-13-20
ARM Action Codes				T2	/ (pi -0 -20	7 (pi - 10 - 20	7 (pr - 20 - 20	7 tug-10-20	/ tug-10-20
# Subsamples, Dec.				- 1					- 2
Trt Treatment									
No. Name	9	10	11	12	13	14	15	16	17
1 10 DAP					0.7 a	0.0 b	8.0 a	2230.0 a	15.05 a
2 20 DAP	22.30 a	14.90 a	21.63 a	18.3 a	4.0 a	0.7 b	3.3 a	2211.7 a	15.30 a
3 30 DAP	11.83 b	11.77 b	11.23 a	10.6 b	4.3 a	10.7 a	3.0 a	2250.0 a	15.18 a
LSD P=.10	2.245	2.276	14.474	2.10	4.14	4.70	9.68	105.20	0.958
Standard Deviation	0.942			0.88					0.550
CV	5.52	7.16		6.1	79.35	71.41	116.43		3.63
Grand Mean	17.067	13.333					-		
Bartlett's X2	0.791	0.009		1.031	3.708				
P(Bartlett's X2)	0.374	0.923	0.124	0.31	0.157	0.022*	0.115	0.436	0.52

THE	THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,								
WEED CON	WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER								
Trial ID:	CN-06-20	Study Dir.:	CODY POWELL/JEFF WILLIAMS						
Location:	MILLER COUNTY	Investigator:	Eric P. Prostko						

Location.	WILLELI
Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date ARM Action Codes # Subsamples, Dec.	ZEAMA PLOT - YIELD BU/A Aug-13-20 TY3 - 1
Trt Treatment No. Name	18
1 10 DAP	242.2 a
2 20 DAP	239.5 a
3 30 DAP	244.0 a
LSD P=.10 Standard Deviation CV Grand Mean Bartlett's X2 P(Bartlett's X2)	10.59 6.08 2.51 241.87 1.808 0.405

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THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE
     WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER
Trial ID:
                   CN-06-20
                                       Study Dir.:
                                                         CODY POWELL/JEFF WILLIAMS
                   MILLER COUNTY
                                                         Eric P. Prostko
Location:
                                       Investigator:
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-1 PERCENT (Data Column 1)
          DF Sum of Squarès Méan Square
Source
                                            F Prob(F)
                 126.148333
Total
           2
                   8.163333
                                4.081667 0.297 0.7711
Replicate
                               90.481667 6.580 0.1243
Treatment
           1
                  90.481667
                  27.503333
                               13.751667
Error
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-2 PERCENT (Data Column 2)
Source
Total
          DF Sum of Squares Mean Square
                                            F Prob(F)
                  70.413333
                                1.781667 0.306 0.7657
Replicate
           2
                   3.563333
Treatment
           1
                  55.206667
                               55.206667 9.483 0.0912
                  11.643333
                                5.821667
Error
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-3 PERCENT (Data Column 3)
          DF Sum of Squarès Méan Square
Source
                                             F Prob(F)
           5
                 376.473333
Total
Replicate
           2
                  25.813333
                               12.906667 0.434 0.6973
                              291.206667 9.796 0.0887
           1
                 291.206667
Treatment
Error
                  59.453333
                               29.726667
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-4 PERCENT (Data Column 4)
Source
          DF Sum of Squares Méan Square
                                               F Prob(F)
Total
                  66.708333
Replicate
           2
                  15.903333
                                7.951667 17.224 0.0549
                  49.881667
                               49.881667 108.047 0.0091
Treatment
           1
Error
                   0.923333
                                0.461667
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-5 PERCENT (Data Column 5)
          DF Sum of Squares Méan Square
                                             F Prob(F)
Source
                 145.215000
           5
Total
Replicate
           2
                  20.320000
                               10.160000 0.305 0.7663
                  58.281667
                               58.281667 1.750 0.3169
Treatment
           1
Error
                  66.613333
                               33.306667
Randomized Complete Block (RCB) AOV For CARD COVERAGE 2"-AVG PERCENT T1 1 (Data Column 6)
          DF Sum of Squarès Méan Square
                                               F Prob(F)
Source
Total
                 102.881133
Replicate
           2
                   6.501733
                                3.250867
                                          4.346 0.1871
                  94.883267
                               94.883267 126.838 0.0078
Treatment
           1
                   1.496133
                                0.748067
Frror
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-1 PERCENT (Data Column 7)
          DF Sum of Squarès Méan Square
                                             F Prob(F)
Source
Total
           5
                 158.140000
           2
                   9.750000
                                4.875000 0.198 0.8345
Replicate
                  99.226667
                               99.226667 4.037 0.1823
Treatment
           1
                  49.163333
                               24.581667
Frror
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-2 PERCENT (Data Column 8)
Source
Total
          DF Sum of Squares Méan Square
                                            F Prob(F)
                 102.800000
           5
           2
                   7.030000
                                3.515000 0.173 0.8523
Replicate
Treatment
           1
                  55.206667
                               55.206667 2.722 0.2408
Error
                  40.563333
                               20.281667
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-3 PERCENT (Data Column 9)
Source
          DF Sum of Squarès Méan Square
                                               F Prob(F)
                 176.273333
Total
           5
Replicate
           2
                  10.173333
                                5.086667
                                          5.737 0.1484
                 164.326667
                              164.326667 185.331 0.0054
Treatment
           1
Error
                   1.773333
                                0.886667
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-4 PERCENT (Data Column 10)
Source
Total
          DF Sum of Squarès Méan Square
                                              F Prob(F)
                  17.353333
Replicate
           2
                   0.803333
                                0.401667 0.441 0.6942
           1
                  14.726667
                               14.726667 16.154 0.0567
Treatment
Error
                   1.823333
                                0.911667
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THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE
     WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER
Trial ID:
                   CN-06-20
                                        Study Dir.:
                                                           CODY POWELL/JEFF WILLIAMS
Location:
                   MILLER COUNTY
                                        Investigator:
                                                           Eric P. Prostko
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-5 PERCENT (Data Column 11)
          DF Sum of Squarès Méan Square
Source
                                              F Prob(F)
                  305.113333
Total
                                34.581667 0.938 0.5159
Replicate
           2
                   69.163333
                  162.240000
Treatment
           1
                               162.240000 4.402 0.1708
                   73.710000
                                36.855000
Error
Randomized Complete Block (RCB) AOV For CARD COVERAGE 6"-AVG PERCENT T2 1 (Data Column 12)
Source
Total
          DF Sum of Squares Mean Square
                                                F Prob(F)
                   90.840533
                    1.730533
Replicate
           2
                                 0.865267
                                            1.112 0.4734
Treatment
           1
                   87.554400
                                87.554400 112.567 0.0088
                    1.555600
                                 0.777800
Error
Randomized Complete Block (RCB) AOV For TOTAL WEED COUNT #/3FT2 Apr-6-20 (Data Column 13)
Source
          DF Sum of Squares Mean Square
                                              F Prob(F)
           8
                   48.000000
Total
Replicate
           2
                    0.666667
                                 0.333333 0.059 0.9437
                                12.333333 2.176 0.2293
           2
                   24.666667
Treatment
                   22.666667
                                 5.666667
Error
Randomized Complete Block (RCB) AOV For TOTAL WEED COUNT #/2FT2 Apr-16-20 (Data Column 14)
Source
          DF Sum of Squares Mean Square
                                               F Prob(F)
           8
Total
                  259.555556
Replicate
           2
                   16.222222
                                 8.111111 1.115 0.4124
           2
                  214.222222
                               107.111111 14.718 0.0143
Treatment
Error
           4
                   29.111111
                                 7.277778
Randomized Complete Block (RCB) AOV For TOTAL WEED COUNT #/2FT2 Apr-29-20 (Data Column 15)
          DF Sum of Squarès Méan Square
Source
                                              F Prob(F)
           8
                  253.555556
Total
           2
                   82.888889
                                41.444444 1.339 0.3587
Replicate
                                23.444444 0.758 0.5260
           2
                   46.888889
Treatment
                  123.777778
                                30.944444
Error
Randomized Complete Block (RCB) AOV For ---- ZEAMA PLOT YIELD LBS/PLOT Aug-13-20 (Data Column 16)
          DF Sum of Squares Mean Square
                                               F Prob(F)
Source
Total
           8
               92522 222222
Replicate
               75705.555556 37852.777778 10.363 0.0262
           2
                2205.55556 1102.777778 0.302 0.7549
Treatment
               14611.111111 3652.777778
Frror
Randomized Complete Block (RCB) AOV For ---- ZEAMA GRAIN MOISTURE PERCENT Aug-13-20 2 (Data Column 17)
          DF Sum of Squarès Méan Square
                                              F Prob(F)
Source
           8
                    1.525556
Total
           2
                    0.220556
                                 0.110278 0.364 0.7156
Replicate
                                 0.046944 0.155 0.8613
           2
                    0.093889
Treatment
                    1.211111
                                 0.302778
Frror
Randomized Complete Block (RCB) AOV For ---- ZEAMA PLOT YIELD BU/A Aug-13-20 TY3 1 (Data Column 18)
Source
          DF Sum of Squares Méan Square
                                               F Prob(F)
Total
                  993.087738
           8
           2
                  814.643175
                               407.321588 11.012 0.0236
Replicate
                                15.242538 0.412 0.6875
Treatment
           2
                   30.485076
Error
                  147.959487
                                36.989872
Rating Data Type
2"-1 = -1
2"-2 = -2
2"-3 = -3
2"-4 = -4
2"-5 = -5
2"-AVG = -AVG
6"-1 = -1
6"-2 = -2
6"-3 = -3
6"-4 = -4
6"-5 = -5
6"-AVG = -AVG
ARM Action Codes
T1 = ([C1]+[C2]+[C3]+[C4]+[C5])/5
T2 = ([C7]+[C8]+[C9]+[C10]+[C11])/5
TY3 = 0.1080357*[16]*(100-[17])/84.5
```

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THE INFILITION OF ARRIVATION TIMING ON SPRAY COVERAGE									
THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,									
WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER  Trial ID: CN-06-20 Study Dir.: CODY POWELL/JEFF WILLIAMS									
Location: MILLER COUNTY Investigator: Eric P. Prostko									
Weed Code CARD CARD CARD CARD CARD CARD CARD CARD									
Crop Code		COVERAGE		COVERAGE	COVERAGE	COVERAGE		COVERAGE	
Part Rated		COVERAGE	COVERAGE	COVERAGE	COVERAGE	COVLINAGE	COVLINAGE	COVERAGE	COVERAGE
Rating Data	Type	2"-1	2"-2	2"-3	2"-4	2"-5	2"-AVG	6"-1	6"-2
Rating Unit	. , , , ,	PERCENT	PERCENT		PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date						_			
ARM Action	Codes						T1		
# Subsample	es, Dec.						- 1		
Trt Treatme	nt								
No. Name	Plot	1	2	3	4	5	6	7	8
1 10 DAP	101								
	201								
	301								
	Mean =	•							
2 20 DAP	102	21.60		33.00	18.60	12.80	21.2	21.80	20.70
	202	15.30	17.50	25.10	13.90	18.40	18.0	15.70	12.60
	302	21.90	17.40	20.90	17.30	24.80	20.5	12.20	14.50
	Mean =	-	18.37	26.33	16.60	18.67	19.9	16.57	15.93
3 30 DAP	103	9.60		11.60	11.80	15.50	11.9	5.70	8.00
	203	13.40		10.70	9.00	10.30	10.9	10.30	12.60
	303	12.50	14.90	14.90	11.70	11.50	13.1	9.30	9.00
	Mean =	11.83	12.30	12.40	10.83	12.43	12.0	8.43	9.87

THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,										
WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER  Trial ID: CN-06-20 Study Dir.: CODY POWELL/JEFF WILLIAMS										
Location: MILLER COUNTY Investigator: Eric P. Prostko										
Weed Code		CARD	CARD	CARD	CARD	TOTAL	TOTAL	TOTAL		
Crop Code		COVERAGE	COVERAGE	COVERAGE	COVERAGE	WEED	WEED	WEED	ZEAMA	
Part Rated									PLOT -	
Rating Data	Туре	6"-3	6"-4	6"-5	6"-AVG		COUNT	COUNT	YIELD	
Rating Unit		PERCENT	PERCENT	PERCENT	PERCENT	#/3FT2	#/2FT2	#/2FT2		
Rating Date ARM Action	Codoo				T2	Apr-6-20	Apr-16-20	Apr-29-20	Aug-13-20	
# Subsample	-				- 1					
Trt Treatme					<u> </u>					
No. Name	Plot	9	10	11	12	13	14	15	16	
1 10 DAP	101					0.0	0.0	2.0	2430.0	
	201					1.0	0.0	3.0	2100.0	
	301					1.0	0.0	19.0	2160.0	
	Mean =					0.7	0.0	8.0	2230.0	
2 20 DAP	102	19.80	14.00	15.70	18.4	7.0	0.0	6.0	2285.0	
	202	23.30	15.30	18.30	17.0	1.0	1.0	2.0	2160.0	
	302 Magn =	23.80 22.30	15.40 14.90	30.90 21.63	19.4 18.3	4.0 4.0	1.0 0.7	2.0 3.3	2190.0 2211.7	
	Mean =									
3 30 DAP	103	10.80	12.20	13.40	10.0	3.0	9.0	2.0	2350.0	
	203 303	11.70 13.00	10.80 12.30	8.80 11.50	10.8 11.0	6.0 4.0	16.0 7.0	1.0 6.0	2150.0 2250.0	
	Mean =		12.30	11.23	10.6	4.0	10.7	3.0	2250.0	
		11.00	1 1.77	11.20	10.0	1.0	10.7	0.0	2200.0	

THE INFLUENCE OF APPLICATION TIMING ON SPRAY COVERAGE,
WEED CONTROL, AND YIELD OF FIELD CORN USING A COMMERCIAL SPRAYER
D: CN-06-20 Study Dir.: CODY POWELL/JEFF WILLIAMS ion: MILLER COUNTY Investigator: Eric P. Prostko Trial ID: Location:

Weed Code Crop Code Part Rated Rating Data Rating Unit Rating Date ARM Action # Subsample	Codes	ZEAMA GRAIN - MOISTURE PERCENT Aug-13-20	ZEAMA PLOT - YIELD BU/A Aug-13-20 TY3 - 1
Trt Treatme	nt		
No. Name	Plot	17	18
1 10 DAP	101	15.45	262.7
	201	15.15	227.8
	301	14.55	236.0
	Mean =	15.05	242.2
2 20 DAP	102	15.60	246.6
	202	15.20	234.2
	302	15.10	237.7
	Mean =	15.30	239.5
3 30 DAP	103	15.05	255.2
	203	14.60	234.8
	303	15.90	241.9
	Mean =	15.18	244.0